Ref. Certif. No.

NO89185/A1

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI DACCEPTATION MUTUELLE DE CERTIFICATS DESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

Product Produit	LCD monitor
Name and address of the applicant Nom et adresse du demandeur	Taiwan BOE Vision-electronic Technology Co., Ltd. 7th Fl., No. 2, Rei Kuang Road, Nei Hu, Taipei Taiwan
Name and address of the manufacturer Nom et adresse du fabricant	Taiwan BOE Vision-electronic Technology Co., Ltd. 7th Fl., No. 2, Rei Kuang Road, Nei Hu, Taipei Taiwan
Name and address of the factory Nom et adresse de l'usine	K Tronics (Suzhou) Technology Co., Ltd. No.1700 Zhongshan North Road, Economic and Technological Development Zone, Wujiang District, Suzhou, Jiangsu Province, P.R. China
Note: When more than one factory, please report on page 2 Note: Lorsque il y plus d'une usine, veuillez utiliser la deuxième page	☐ Additional information on page 2
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	1.5A 100-240Vac, 50/60Hz Cl. I
Trademark (if any) Marque de fabrique (si elle existe)	AOC
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur	
Model / Type Ref. Ref. De type	E2275SW** (MODEL NAME: 215LM000**)
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiqués sur la deuxième page	The * in the model name can be alphameric or blank ☐ Additional information on page 2
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	IEC 60950-1(ed.2);am1;am2
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport dessais numéro de référence qui constitue partie de ce Certificat	299932 This certificate replaces the certificate NO89185, due to addition market model name 215LM000**.

This CB Test Certificate is issued by the National Certification Body
Ce Certificat dessai OC est établi par l'Organisme **National de Certification**

Nemko

Gaustadalléen 30
NO-0373 Oslo, Norway

Date: 23-12-2015

Signature: Okhyun Jeon
Certification Department

Ref. Certif. No.

NO90048

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI DACCEPTATION MUTUELLE DE CERTIFICATS DESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

Product Produit	LCD monitor
Name and address of the applicant Nom et adresse du demandeur	Taiwan BOE Vision-electronic Technology Co., Ltd. 7th Fl., No. 2, Rei Kuang Road, Nei Hu, Taipei Taiwan
Name and address of the manufacturer Nom et adresse du fabricant	Taiwan BOE Vision-electronic Technology Co., Ltd. 7th Fl., No. 2, Rei Kuang Road, Nei Hu, Taipei Taiwan
Name and address of the factory Nom et adresse de l'usine	K Tronics (Suzhou) Technology Co., Ltd. No.1700 Zhongshan North Road, Economic and Technological Development Zone, Wujiang District, Suzhou, Jiangsu Province, P.R. China
Note: When more than one factory, please report on page 2 Note: Lorsque il y plus d'une usine, veuillez utiliser la deuxième page	☐ Additional information on page 2
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	1.5A 100-240V~ 50/60Hz Cl. I
Trademark (if any) Marque de fabrique (si elle existe)	AOC
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur	
Model / Type Ref. Ref. De type	E2275PW** (Model name: 215LM000**) The * in the model name can be alphameric or blank
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiqués sur la deuxième page	☐ Additional information on page 2
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	IEC 60950-1(ed.2);am1;am2
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport dessais numéro de référence qui constitue partie de ce Certificat	299932

This CB Test Certificate is issued by the National Certification Body
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Nemko

Gaustadalléen 30
NO-0373 Oslo, Norway

Date: 23-12-2015

Signature: Okhyun Jeon
Certification Department

Test Report issued under the responsibility of

www.nemko.com

Amendment to Test Report

This Amendment is valid only together with the main Test Report

Report No .....:	299932
Main Report No .....:	296234
Date of issue .....:	23 December, 2015
Total number of pages .....:	28 pages and refer to page 3.
Applicant's Name .....:	Taiwan BOE Vision-electronic Technology Co., Ltd.
Address .....:	7th Fl., No. 2, Rei Kuang Road, Nei Hu, Taipei, Taiwan
Test specification	
Standard.....:	IEC 60950-1:2005 (2nd Edition); Am 1:2009 +Am2: 2013
Test procedure .....:	CB scheme
Non-standard test method .....:	N/A

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description .....:	LCD monitor
Trade Mark .....:	AOC
Manufacturer .....:	Same as applicant
Model/Type reference .....:	E2275SW** **(MODEL NAME: 215LM000**);** **E2275PW** (MODEL NAME: 215LM000**)** (the * in the model name can be alphameric or blank)
Ratings .....:	I/P: Cl. I 1.5A 100-240V~ 50/60Hz

Testing procedure and testing location:			
☒	**CB Testing Laboratory:**	Nemko Taiwan	
Testing location/ address .....:		5 Fl., No. 409, Sec. 2, Tiding Blvd., Neihu, Taipei 114, Taiwan	
☐	**Associated CB Laboratory:**		
Testing location/ address .....:			
	Tested by (name + signature).....:	Ryan Chen	Ryan Chen
	Approved by (name + signature)...:	Roger Liou	Roger Liou
☐	**Testing procedure: TMP**		
Testing location/ address .....:			
	Tested by (name + signature).....:		
	Approved by (name + signature)...:		
☐	**Testing procedure: WMT**		
Testing location/ address .....:			
	Tested by (name + signature).....:		
	Witnessed by (name + signature) .:		
	Approved by (name + signature)...:		
☐	**Testing procedure: SMT**		
Testing location/ address .....:			
	Tested by (name + signature).....:		
	Approved by (name + signature)...:		
	Supervised by (name + signature):		
☐	**Testing procedure: RMT**		
Testing location/ address .....:			
	Tested by (name + signature).....:		
	Approved by (name + signature)...:		
	Supervised by (name + signature):		

List of Attachments (including a total number of pages in each attachment):

1. PCB layout (2 pages)

2. Photos (9 pages)

3. Transformer specification(s) (6 pages)

Summary of testing:

Tests performed (name of test and test clause):

1.6 Power interface
1.7 Marking and instructions
2.1 Protection from electric shock and energy hazards
2.2 SELV circuits
2.5 Limited power sources
2.6 Provisions for earthing and bonding
2.9 Electrical insulation
2.10 Clearances, creepage distances and distances through insulation
4.1 Physical Requirements
4.2 Mechanical strength
4.5 Thermal requirements
4.6 Openings in enclosures
5.1 Touch current and protectiveconductor current
5.2 Electric strength
5.3 Abnormal operating and fault conditions
Annex C Transformers

Operation condition:
Continuous. Full white display with max. brightness and contrast, picture provided from a computer.

Testing location:

See page 2

Summary of compliance with National Differences:

The sample(s) tested compliance with the requirements of IEC 60950-1: 2005 (2nd Edition); Am1: 2009; Am2: 2013 and all CENELEC members except Denmark as listed in EN 60950-1: 2006 +A11: 2009+A1: 2010+A12: 2011+ A2: 2013.
At the time of issuing this test report, not all countries are listed for IEC 60950-1:2005 (2nd Edition); Am1:2009+Am2:2013. Therefore this test report includes national differences for IEC 60950-1: 2005 (2nd Edition) and IEC 60950-1: 2001 1st Edition.
All national differences listed in the IECEE Online CB Bulletin except Denmark are covered by the Common Modifications,
Special National Conditions, National Deviations, and the National Requirements noted above except for the countries which are documented in Attachment. National Differences attached to this test report: refer to List of attachments for details.

Copy of marking plate The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

Possible test case verdicts:	
- test case does not apply to the test object .....:	Not Applicable (N/A)
- test object does meet the requirement.....:	Pass (P)
- test object does not meet the requirement .....:	Fail (F)
Testing.....:	
Date of receipt of test item.....:	December, 2015
Date(s) of performance of tests .....:	December, 2015

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....:	☐ **Yes** ☒ **Not applicable**
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) .....:	
K Tronics (Suzhou) Technology Co., Ltd. No.1700 Zhongshan North Road, Economic and Technological Development Zone, Wujiang District, Suzhou, Jiangsu Province, P.R. CHINA	

General product information:

This Amendment shall always be enclosed with main Test Report, report/order no. 296234.

The changes concern the following:

- Add one market model name 215LM000**; the 215LM000** is identical to E2275SW** except model designation for marketing purpose, refer to Copy of marking plate on main test report no.: 296234 for details.
- Add one model name E2275PW** (market model name 215LM000**) the model: E2275PW** is identical to E2275SW**** except model designation and below items:
  a. Configure with new power supply board (P/N: LE22BW-D-8) with alternative metal enclosure (call B)
  b. Configure with main board (call B)
  c. Configure with original fix base or new alternative swivel base (with equipment dimension Max. 320*160*509 mm, unit: 2.79kg, base: 2.0kg), see attachment photos for details.
- Revise typo on table 1.5.1, see bold letter on table 1.5.1 for details.

Project history:

Nemko Report/ Order No.:	Modification to the appliances:	Changes/ Modifications in clause(s):
296234	Main report	
299932	- Add one market model name 215LM000**. - Add one model name E2275PW** (market model name 215LM000**). - Revised typo on table 1.5.1	1.5, 1.6, 1.7, 2.1, 2.2, 2.5, 2.6, 2.9, 2.10, 4.1, 4.2, 4.5, 4.6, 4.7, 5.1, 5.2, 5.3 and Annex C

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5	**Components**		**P**
1.5.1	General	See below.	**P**
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	**P**
1.5.2	Evaluation and testing of components	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this standard. Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component standard. Components, for which no relevant IEC-standard exists, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.	**P**
1.5.4	Transformers	Transformers used are suitable for their intended applications and comply with relevant parts of this standard and particularly Annex C, see Annex C – Transformers.	**P**
1.5.5	Interconnecting cables	No interconnecting cable.	**N/A**
1.5.6	Capacitors bridging insulation	X1 or X2 and Y2 capacitors according to IEC 60384-14:1993.	**P**
1.5.7	Resistors bridging insulation	Refer to below:	**P**
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	No special requirement for the bleeder resistors (Three in series, located after the fuse) are bridging functional insulation. Refer to appended table 1.5.1 for details.	**P**
1.5.8	Components in equipment for IT power systems	Certified capacitors connected between line and earth, refer List of Critical Components and 1.5.6.	**P**
1.5.9	Surge suppressors	No Surge suppressors in the equipment.	**N/A**

1.6	**Power interface**		**P**
1.6.1	AC power distribution systems	TN, and IT for Norway.	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.4	Neutral conductor	Neutral is insulated from earth with basic insulation throughout the equipment.	P
1.7	**Marking and instructions**		P
1.7.1	Power rating and identification markings	The required marking is located on the outside surface of the equipment.	P
1.7.1.1	Power rating marking	Refer to below:	P
	Multiple mains supply connections.....:	Single supply connection.	N/A
	Rated voltage(s) or voltage range(s) (V) ..... :	Refer to copy of marking plate.	—
	Symbol for nature of supply, for d.c. only ..... :	The equipment is for a.c. supply.	N/A
	Rated frequency or rated frequency range (Hz) ... :	Refer to copy of marking plate.	—
	Rated current (mA or A) ..... :	Refer to copy of marking plate.	—
1.7.1.2	Identification markings	Refer to below:	P
	Manufacturer's name or trade-mark or identification mark ..... :	Refer to copy of marking plate.	—
	Model identification or type reference ..... :	Refer to copy of marking plate.	—
	Symbol for Class II equipment only ..... :	Class I equipment.	N/A
	Other markings and symbols ..... :	The additional marking does not give rise to misunderstandings.	P
1.7.2	Safety instructions and marking	FI, N, S and D required marking for an unit that must be connected to protective earth only. The text is required because safety relies on connection to protective earth. The Norwegian, Swedish, and Finnish texts are provided on the marking plate, therefore, must be considered when enter Denmark market.	—
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) ..... :	Fuse location and marking: F801, T2AL / 250V	P
1.7.8.3	Symbols according to IEC 60417 ..... :	The mains switch is marked with the symbols: "O" and "I" (IEC 60417-1 No. 5008 and 5007).	P
1.7.11	Durability	The marking withstands required tests and functional switch is marked ⏻ complies with IEC-60417-5009..	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.1	**Protection from electric shock and energy hazards**		**P**
2.1.1.4	Access to hazardous voltage circuit wiring	All accessible parts are separated from internal wiring at hazardous voltage by double or reinforced insulation, complying with 2.10.5 and 3.1.4.	**P**
2.1.1.5	Energy hazards ..... :	No energy hazard in operator access area. Checked by means of test finger. (see appended table 2.1.1.5)	**N/A**
2.1.2	Protection in service access areas	Checked by inspection, unintentional contact is unlikely during service operations.	**P**
2.2	**SELV circuits**		**P**
2.2.1	General requirements	SELV limits are not exceeded under normal condition and after a single fault.	**P**
2.2.2	Voltages under normal conditions (V) ..... :	Within SELV limits. (see appended table 2.2)	**P**
2.2.3	Voltages under fault conditions (V) ..... :	Within SELV limits. (See appended table 2.2)	**P**
2.2.4	Connection of SELV circuits to other circuits ..... :	SELV circuits are only connected to other SELV circuits.	**P**
2.5	**Limited power sources**		**P**
	a) Inherently limited output		**N/A**
	b) Impedance limited output		**N/A**
	c) Regulating network limited output under normal operating and single fault condition	(see appended table 2.5.)	**P**
	Use of integrated circuit (IC) current limiters		**N/A**
	d) Overcurrent protective device limited output		**N/A**
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	(see appended table 2.5.)	**P**
	Current rating of overcurrent protective device (A) .:		**—**
2.6	**Provisions for earthing and bonding**		**P**
2.6.1	Protective earthing	Accessible conductive parts are reliably connected to protective earth.	**P**
2.6.2	Functional earthing	Functional earthing is separated from hazardous voltages by reinforced insulation.	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Use of symbol for functional earthing .....:		**N/A**
2.6.3	Protective earthing and protective bonding conductors	Refer to below:	**P**
2.6.3.1	General	Refer to below:	**P**
2.6.3.2	Size of protective earthing conductors	Refer to Summary of Testing.	**N/A**
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		**—**
2.6.3.3	Size of protective bonding conductors	Refer to cl. 2.6.3.4	**P**
	Rated current (A), cross-sectional area (mm^2), AWG ..... :	Refer to cl. 2.6.3.4	**—**
	Protective current rating (A), cross-sectional area (mm^2), AWG..... :	Refer to cl. 2.6.3.4	**—**
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min)..... :	Refer to table 2.6.3.4.	**P**
2.6.3.5	Colour of insulation ..... :	No colour for insulation used. The AC Inlet ground pin is solder on PSU PCB directly.	**N/A**

2.9	**Electrical insulation**		**P**
2.9.1	Properties of insulating materials	Neither natural rubber, materials containing asbestos nor hygroscopic materials are used as insulation. No driving belts or couplings used. However, humidity test performed on equipment with all sources of transformer (T801) and opotocoupler (I802) then subjected to the electric strength test of 5.2.2.	**N/A**
2.9.2	Humidity conditioning	Humidity treatment performed for 120hrs. (Also test incorporated for all sources of transformer and optocoupler)	**P**
	Relative humidity (%), temperature (°C) ..... :	91-95%, 40°C.	**—**
2.9.3	Grade of insulation	Insulation is considered to be functional, basic, supplementary, reinforced or double insulation.	**P**
2.9.4	Separation from hazardous voltages	The accessible conductive parts, including SELV circuits, and their related windings, are separated from parts at hazardous voltage by double or reinforced insulation.	**P**
	Method(s) used ..... :	Method 1 is used.	**—**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10	**Clearances, creepage distances and distances through insulation**		**P**
2.10.1	General	Refer to below:	**P**
2.10.1.1	Frequency ..... :	Considered.	**P**
2.10.1.2	Pollution degrees ..... :	The equipment is considered located within pollution degree II.	**P**
2.10.1.3	Reduced values for functional insualtion	The functional insualtions complies with 5.3.4 a) and c)	**P**
2.10.1.4	Intervening unconnected conductive parts	Considered.	**P**
2.10.2	Determination of working voltage	(See appended table 2.10.2)	**P**
2.10.2.1	General	Refer below:	**P**
2.10.2.2	RMS working voltage	(see appended table 2.10.2)	**P**
2.10.2.3	Peak working voltage	(see appended table 2.10.2)	**P**
2.10.3	Clearances	Refer to below:	**P**
2.10.3.1	General	Considered.	**P**
2.10.3.2	Mains transient voltages	Refer to below:	**P**
	a) AC mains supply ..... :	Equipment is Overvoltage Category II (2500V).	**P**
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.3.6	Transients from a.c. mains supply ..... :	Considered.	**P**
2.10.4	Creepage distances	See below.	**P**
2.10.4.1	General	Considered.	**P**
2.10.4.2	Material group and caomparative tracking index	Material group IIIa or IIIb is assumed to be used.	**P**
	CTI tests..... :	CTI rating for all material of minimum 100.	**—**
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.5	Solid insulation	Considered.	**P**
2.10.5.1	General	Refer to below:	**P**
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	**P**
2.10.5.3	Insulating compound as solid insulation	Approved optocouplers, see appended table 1.5.1.	**P**
2.10.5.6	Thin sheet material – General	Refer to below:	**P**
2.10.5.7	Separable thin sheet material	Refer to appended table 2.10.5	**P**
2.10.5.10	Thin sheet material – alternative test procedure	(see appended table 2.10.5)	**P**
	Electric strength test	(see appended table 2.10.5)	**P**
2.10.5.12	Wire in wound components	Insulation on winding wires of T801 complies with annex U.	**P**
	Working voltage ..... :	(see appended table 2.10.2)	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	a) Basic insulation not under stress ..... :		**N/A**
	b) Basic, supplemetary, reinforced insulation ..... :	(see appended table Annex C.2)	**P**
	c) Compliance with Annex U ..... :	Considered.	**P**
	Two wires in contact inside wound component; angle between 45° and 90° ..... :		**N/A**
2.10.6	Construction of printed boards	Refer to below:	**P**
2.10.6.1	Uncoated printed boards	Considered. (see appended table 2.10.3 and 2.10.4)	**P**
2.10.6.2	Coated printed boards	No such parts.	**N/A**
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	No such parts.	**N/A**
2.10.6.4	Insulation between conductors on different layers of a printed board	Double side with single layer PCB does not serve as insulation barrier.	**N/A**
	Distance through insulation		**—**
	Number of insulation layers (pcs)..... :		**P**
2.10.9	Thermal cycling	Approved optocouplers, see appended table 1.5.1.	**P**
2.10.10	Test for Pollution Degree 1 environment and insulating compound	Approved optocouplers, see appended table 1.5.1.	**P**
2.10.12	Enclosed and sealed parts	Approved optocouplers, see appended table 1.5.1.	**P**

4.1	**Stability**		**P**
	Angle of 10°	Units did not overbalance at 10°. (Per client request)	**P**

4.2	**Mechanical strength**		**P**
4.2.1	General	Considered.	**P**
4.2.2	Steady force test, 10 N	No hazard, ref. comment in table 2.10.3 and 2.10.4.	**P**
4.2.3	Steady force test, 30 N	No hazard. The test is performed on metal enclosure.	**P**
4.2.4	Steady force test, 250 N	No hazard. The test is performed at outside plastic enclosure.	**P**
4.2.5	Impact test	Refer to below:	**P**
	Fall test	No hazard as result from the steel sphere fall test.	**P**
	Swing test	No hazard as result from the steel sphere swing test.	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.7	Stress relief test	Test is carried out at 70°C/7h. No risk of shrinkage or distortion on enclosures due to release of internal stresses.	P
4.2.10	Wall or ceiling mounted equipment; force (N) ..... :	(Tested =8.37kg, Unit weight=2.79kg, excluded base). The equipment and its associated mounting means still remain secure during the test. (wall mounting kit, 100 x 100 mm distance, diameter of screw=4.0mm, 10mm length used)	P
4.5	**Thermal requirements**		P
4.5.1	General	Considered.	P
4.5.2	Temperature tests	(see appended table 4.5)	P
	Normal load condition per Annex L ..... :	Rated load with continuous operation.	P
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.6	**Openings in enclosures**		P
	Dimensions (mm) ..... :	**Internal metal chassis B:** **Top side:** Numerous circle openings measured max. 3.4 mm in diameter. **Right side (considered as bottom side also when swivel base used):** no openings. **Left side:** Numerous circle openings measured max. 3.4 mm in diameter. **Rear side:** no openings. (No any components are located within 5° projection of openings)	—
4.6.2	Bottoms of fire enclosures	Refer to bellow	P
	Construction of the bottomm, dimensions (mm) .. :	No openings.	—
4.7	**Resistance to fire**		P
4.7.1	Reducing the risk of ignition and spread of flame	Method 1 is used.	P
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.1	**Touch current and protective conductor current**		**P**
5.1.1	General	Test conducted in accordance with 5.1.2 to 5.1.7.	**P**
5.1.2	Configuration of equipment under test (EUT)	Refer to below:	—
5.1.2.1	Single connection to an a.c. mains supply	Considered.	**P**
5.1.3	Test circuit	Tested for connection to IT power distribution system (also relevant for TN or TT power distribution system).	**P**
5.1.4	Application of measuring instrument	Measuring instrument D.1 is used.	—
5.1.5	Test procedure	Considered.	—
5.1.6	Test measurements	Measuring instrument D.1 is used.	—
	Supply voltage (V) ..... :	(See appended table 5.1)	—
	Measured touch current (mA) ..... :	(See appended table 5.1)	**P**
	Max. allowed touch current (mA) ..... :	3.5 and 0.25	—
	Measured protective conductor current (mA) ..... :		—
	Max. allowed protective conductor current (mA).. :		—

5.2	**Electric strength**		**P**
5.1.1	General	Test conducted in accordance with 5.1.2 to 5.1.7.	**P**
5.2.1	General	(see appended table 5.2)	**P**
5.2.2	Test procedure	(see appended table 5.2)	**P**

5.3	**Abnormal operating and fault conditions**		**P**
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	**P**
5.3.3	Transformers	See appended Annex C.	**P**
5.3.4	Functional insulation ..... :	Complies with a) and c).	**P**
5.3.7	Simulation of faults	(see appended table 5.3)	**P**
5.3.9	Compliance criteria for abnormal operating and fault conditions	Refer to below:	**P**
5.3.9.1	During the tests	No fire or molten metal occurred and no deformation of enclosure during the tests.	**P**
5.3.9.2	After the tests	No reduction of clearance and creepage distances. Electric strength test is made on basic, supplementary and reinforced insulation.	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

C	**ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		**P**
	Position ..... :	Primary to SELV.	—
	Manufacturer ..... :	(see appended table 1.5.1)	—
	Type ..... :	(see appended table 1.5.1)	—
	Rated values ..... :	(see appended table 1.5.1)	—
	Method of protection ..... :	Inherent impedance.	—
C.1	Overload test	(see appended table 5.3)	**P**
C.2	Insulation	The reinforced insulation fulfil the requirement in Sub-clause 2.10 and relevant tests of Sub-clause 5.2.2	**P**
	Protection from displacement of windings ..... :	Secured by tubing and insulation tape. (see appended table C.2)	**P**

1.5.1	TABLE: List of critical components	P

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
Stand	**Interchangeable**	**Interchangeable**	**Min. HB**	**UL94**	**UL**
LCD display Panel	**K-Tronic**	BOEA215XXX (X=0-9, A-Z or blank)	21.5" TFT type, LED Backlight	--	See Annex A.2
The following components are located on PSU & main board type LE22BW-D-7 (with VGA and DVI input) and LE19BW-A-2 (with VGA input) which are different at secondary circuits.					
Line choke (L805) ***1)*** (optional)	ASET MANNILUN LI TAI	2371214310X-0B 2371214310X-0C 2371214310**X**-02 (X=0-9, A-Z or blank for RoHS difference purpose)	130°C		Tested in equip
Bobbin	Chang Chun Chang Chun	T375HF T373J	Phenolic, V-0 Phenolic, V-0	UL 94	UL UL
Transformer (T801) ***2)***	LI TAI (factory : LITAI ELECTONICS ENTERPRISE CO., LTD.)	2374225120X-02 (X=0-9, A-Z or blank for RoHS difference purpose)	Class B	IEC 60950-1 and evaluated acc. To IEC60085	Tested in the equip.
Bobbin Insu. tape Triple insu. wire	**Chung Chun** 3M SYMBIO SYMBIO INC COSMOLINK	**T375J** 1350F-1(b) 35660Y**(e)** TIW-M	V-0, phenolic 130°C 130°C 130°C	UL 94 UL 510 UL 510 IEC 60950-1 Annex U, UL 2353	UL UL UL VDE, UL
Alt. transformer (T801) ***2)***	ASET (factory : PHILIP SUZHOU ASIA ELECTRONICS TECHNOLOGY CO.,LTD)	2374225120X-08 (X=0-9, A-Z or blank for RoHS difference purpose)	Class B	IEC 60950-1 and evaluated acc. To IEC60085	Tested in the equip.
Bobbin Insu. tape Triple insu. wire	**Chung Chun** JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD COSMOLINK	**T375J** CT***(c)(g)** TIW-M	V-0, phenolic 130°C 130°C	UL 94 UL 510 IEC 60950-1 Annex U, UL 2353	UL UL VDE, UL

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
The following components are located on PSU P/N: LE22BW-D-8.					
Switch (Optional)	Rong Feng Ningbo Yinxian Lihe	RF-1003 RL3	10A, 250V, min. 6A, 250V, min.	IEC 61058-1	VDE UL
Appliance inlet (S801)	Tecx-unions Rong Feng Rong Feng Zhangjiagang Huajie Electronic Co., Ltd. Inalways Inalways Shenzhen Delikang Kunshan DLK	TU-301-SP SS-7B, SS-7B-1 SS-120 SA-4S 0711, 0711-1 0711-2, 0711-3 CDJ-3 CDJ-3	10A, 250V, min. 70°C	IEC 60320-1, UL 498	VDE, UL VDE, UL VDE, UL VDE, UL VDE, UL VDE, UL VDE, UL VDE, UL
Fuse (F801)	Ever Island walter Bussmann Bussmann Hollyland Hollyland Littelfuse Conquer Bel	2010, 2000 SS-5 SR-5 5RT 5ET 382,392 MET, MST MRT	T2.0AL, 250V	IEC 60127-1, IEC 60127-3, UL 248-14	VDE, UL VDE, UL VDE, UL VDE, UL VDE, UL VDE, UL VDE, UL
Y-capacitors (C801,C802, C810) (Optional)	Success TDK Kunshan Wansheng Xiamen sino falth	SE, SB CD CT7 HCY Series HCX Series	C810=3300pF C801=C802= 2000pF Max. Min. 250V, min. 85°C, min. Y2 type	IEC 60384-14 2ed., UL 1414	FI, UL FI, UL FI, UL FI, UL FI, UL
Thermistor (R801) (Optional)	Interchangeable	Interchangeable	10Ω at 25°C, 3A (Located after mains fuse)		Tested in the equip.
X-Capacitor (C803) (Optional)	Liow Gu Europtronic CHIEFCON Shiny Space STRONG	GS-L MPX CKX SX1 MPX	Max. 0.22µF, 250V, min. 100°C, min. X2	IEC 60384-14 2ed. with 21 days damp heat test, UL 1414	FI, UL FI, UL FI, UL FI, UL FI, UL
Line Choke (L801) *1)* (optional) Bobbin	ASET MANNILUN LI TAI Chang Chun Chang Chun	2371214310X-0B 2371214310X-0C 2371214310X-02 (X=0-9, A-Z or blank for RoHS difference purpose) T375HF T373J	130°C Phenolic, V-0 Phenolic, V-0	 UL 94 UL 94	Tested in equip. UL UL
Bleeder Resistors (R802, R803, R804)	Interchangeable	SMD type	1MΩ, min. 1/4W (three in series, located after fuse)		Tested in the equip.

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
Bridge rectifier (D801)	**Interchangeable**	**Interchangeable**	**Min. 2A, min. 600V**	**--**	**Tested in the equip.**
Bulk capacitor (C816)	**Interchangeable**	**Interchangeable**	**47-100µF, min. 400V, 105°C**	**--**	**Tested in the equip.**
Mosfet (Q801)	**Interchangeable**	**Interchangeable**	**Min. 2A, min. 600V**		**Tested in the equip.**
Current sensor resistor (R831)	**Interchangeable**	**Interchangeable**	**0.56-1.0Ω, 2W**		**Tested in the equip.**
Transformer (T801) ***2)***	**LI TAI (factory: LITAI ELECTONICS ENTERPRISE CO., LTD.)**	**2374225120X-02 (X=0-9, A-Z or blank for RoHS difference purpose)**	**Class B**	**IEC 60950-1 and evaluated acc. To IEC60085**	**Tested in the equip.**
Bobbin	**Chang Chun**	**T375J**	**V-0, phenolic**	**UL 94**	**UL**
Insu. tape	**3M SYMBIO SYMBIO INC**	**1350F-1(b) 35660Y(e)**	**130°C 130°C**	**UL 510 UL 510**	**UL UL**
Triple insu. wire	**COSMOLINK**	**TIW-M**	**130°C**	**UL 510**	**UL**
Transformer (T801) ***2)***	**ASET (factory: PHILIP SUZHOU ASIA ELECTRONICS TECHNOLOGY CO.,LTD)**	**2374225120X-08 (X=0-9, A-Z or blank for RoHS difference purpose)**	**Class B**	**IEC 60950-1 and evaluated acc. To IEC60085**	**Tested in the equip.**
Bobbin	**Chang Chun**	**T375J**	**V-0, phenolic**	**UL 94**	**UL**
Insu. tape	**JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD**	**CT*(c)(g)**	**130°C**	**UL 510**	**UL UL**
Triple insu. wire	**COSMOLINK**	**TIW-M**	**130°C**	**UL 510**	**UL**

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
Transformer (T801) *2)*	**SUZHOU MANNILUN ELECTRONICS TECHNOLOGY CO LTD(factory: SUZHOU MANNILUN ELECTRONICS TECHNOLOGY CO LTD)**	**2374225120X-0C (X=0-9, A-Z or blank for RoHS difference purpose)**	**Class B**	**IEC 60950-1 and evaluated acc. To IEC60085**	**Tested in the equip.**
Bobbin	**Chang Chun**	**T375J**	**V-0, phenolic**	**UL 94**	**UL**
Insu. tape	**JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD**	**CT*(c)(g)**	**130°C**	**UL 510**	**UL UL**
Triple insu. wire	**COSMOLINK**	**TIW-M**	**130°C**	**UL 510**	**UL**
Optocoupler (I802)	**COSMO**	**K1010 series**	**Isolating voltage: min 3000Vac. Int. cr. / Ext. cr. / Dti: 5.3 / 6.5 / 0.5 mm., min. 100°C**	**IEC 60950-1 UL 1577**	**FI, UL**
Alt. Optocoupler (I802)	**Lite-On**	**LTV817**	**Isolating voltage: min 3000Vac. Int. cr. / Ext. cr. / Dti: *) / 8 / 0.6 mm., min. 100°C**	**IEC 60950-1 UL 1577**	**FI, UL**
Alt. Optocoupler (I802)	**Lite-On**	**LTV827**	**Isolating voltage: min 3000Vac. Int. cr. / Ext. cr. / Dti: *) / 8 / 0.6 mm., min. 100°C**	**IEC 60950-1 UL 1577**	**FI, UL**
Alt. Optocoupler (I802)	**Lite-On**	**LTV847**	**Isolating voltage: min 3000Vac. Int. cr. / Ext. cr. / Dti: *) / 8 / 0.6 mm., min. 100°C**	**IEC 60950-1 UL 1577**	**FI, UL**
[1]) An asterisk indicates a mark which assures the agreed level of surveillance					
Supplementary information:					

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
1) All sources of choke are identical to each other's except manufacturer, type and materials. ***2)*** All sources of transformer are identical to each other's except manufacturer, type and materials. Refer to attachment transformer specification.					

1.5.1	TABLE: Opto Electronic Devices	P

Manufacturer	:	See appended table 1.5.1
Type	:	See appended table 1.5.1
Separately tested	:	See appended table 1.5.1
Bridging insulation	:	Reinforced insulation
External creepage distance	:	See appended table 1.5.1
Internal creepage distance	:	See appended table 1.5.1
Distance through insulation	:	See appended table 1.5.1
Tested under the following conditions	:	R, S, B
Input	:	
Output	:	

supplementary information

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
Testing conducted on PSU board P/N: LE22BW-D-8 with main board B (HDMI mode)						
90V/50Hz	0.44	--	24.2	F801	0.37	Maximum Normal Load
90V/60Hz	0.44	--	24.2	F801	0.37	Maximum Normal Load
100V/50Hz	0.41	1.5	23.9	F801	0.34	Maximum Normal Load
100V/60Hz	0.41	1.5	23.9	F801	0.34	Maximum Normal Load
240V/50Hz	0.20	1.5	23.6	F801	0.17	Maximum Normal Load
240V/60Hz	0.20	1.5	23.6	F801	0.17	Maximum Normal Load
264V/50Hz	0.19	--	23.7	F801	0.16	Maximum Normal Load
264V/60Hz	0.19	--	23.7	F801	0.16	Maximum Normal Load
Testing conducted on PSU board P/N: LE22BW-D-8 with main board B (DVI mode)						
90V/50Hz	0.41	--	23.0	F801	0.41	Maximum Normal Load
90V/60Hz	0.41	--	23.0	F801	0.41	Maximum Normal Load
100V/50Hz	0.38	1.5	22.7	F801	0.38	Maximum Normal Load
100V/60Hz	0.38	1.5	22.7	F801	0.38	Maximum Normal Load
240V/50Hz	0.18	1.5	22.4	F801	0.18	Maximum Normal Load
240V/60Hz	0.18	1.5	22.4	F801	0.18	Maximum Normal Load
264V/50Hz	0.17	--	22.5	F801	0.17	Maximum Normal Load
264V/60Hz	0.17	--	22.5	F801	0.17	Maximum Normal Load
Testing conducted on PSU board P/N: LE22BW-D-8 with main board B (VGA mode)						
90V/50Hz	0.40	--	22.7	F801	0.40	Maximum Normal Load
90V/60Hz	0.40	--	22.7	F801	0.40	Maximum Normal Load
100V/50Hz	0.37	1.5	22.4	F801	0.37	Maximum Normal Load
100V/60Hz	0.37	1.5	22.4	F801	0.37	Maximum Normal Load
240V/50Hz	0.18	1.5	22.1	F801	0.18	Maximum Normal Load
240V/60Hz	0.18	1.5	22.1	F801	0.18	Maximum Normal Load
264V/50Hz	0.17	--	22.2	F801	0.17	Maximum Normal Load
264V/60Hz	0.17	--	22.2	F801	0.17	Maximum Normal Load
Supplementary information:						

2.1.1.5 c) 1)	TABLE: max. V, A, VA test	P

Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)
Testing conducted on PSU P/N: LE22BW-D-8				
+5V(After D808)	2.0	5.03	6.5	28.3
+14V(After D809)	0.9	14.72	4.6	50.2
supplementary information:				
Measured on buid-in power supply output,				

2.1.1.7	TABLE: discharge test	P

Condition	calculated (s)	measured (s)	t u → 0V (s)	Comments
Testing conducted on PSU P/N: LE22BW-D-8				
L-N (System on)	0.66	0.51	--	Vo=360V, 37% of Vo=133V
L-N (System off) ***1)***	0.66	0.004	--	Vo=362V, 37% of Vo=134V
supplementary information:				
Overall capacity C803 (0.22uF). Discharge resistor: 3MΩ, R802=R803=R804=1MΩ, 3 in series. Note: supplied with 264V/60Hz. ***1)*** Per client request				

2.2	TABLE: evaluation of voltage limiting components in SELV circuits	P

Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V peak	V d.c.	
Testing conducted on PSU P/N: LE22BW-D-8			
T801 Pin 6,7 to Pin 9,10	34.0	--	--
T801 Pin 8 to Pin 9,10	76.0	--	--
After R832, R833, R834	68.2	--	--
After C817,D809	--	14.0	C817, D809
Before L902 to GND (LED drive board)	--	14.0	--
After L902 to GND (LED drive board)	43.2	--	--
After D902 to GND (LED drive board)	--	39.6	

Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)
D809 s-c	0 Vdc (Measured at +14V to GND)
C817 s-c	14.4 Vdc (Measured at +14V to GND)
R832 s-c	14.2 Vdc (Measured at +14V to GND)
L902 s-c	30.0 Vdc (Measured at P901 pin3, 4 to GND) *)
D902 s-c	25.6 Vdc (Measured at P901 pin3, 4 to GND) *)
C924 s-c	1.7 Vdc (Measured at P901 pin3, 4 to GND) *)
R926 s-c	25.8 Vdc (Measured at P901 pin3, 4 to GND) *)
R927 s-c	25.8 Vdc (Measured at P901 pin3, 4 to GND) *)
R928 s-c	25.9 Vdc (Measured at P901 pin3, 4 to GND) *)
supplementary information: s-c=short circuit	
*) per client request	

2.5	TABLE: Limited power sources	P

Circuit output tested:

Note: Measured Uoc (V) with all load circuits disconnected:

Components	Uoc (V)	Isc (A)		VA	
		Meas.	Limit	Meas.	Limit
Testing conducted on PSU P/N: LE22BW-D-8					
Testing conducted on power supply +14Vdc o/p: table 2B (after D809)					
Normal condition	14.72	4.6	8	50.2	100
R820 s-c	14.72	4.5	8	48.7	100
R821 s-c	14.72	4.4	8	47.3	100
R825 s-c	0	0	8	0	100
Testing conducted on power supply +5Vdc o/p: table 2B (after D808)					
Normal condition	5.3	6.5	8	28.3	100
R820 s-c	5.3	6.3	8	27.2	100
R821 s-c	5.3	6.2	8	26.8	100
R825 s-c	0	0	8	0	100
Supplementary information:					

2.6.3.4	TABLE: ground continue test	P

Location	Resistance measured (mΩ)	Comments
Testing conducted on PSU P/N: LE22BW-D-8		
PE pin of AC inlet to Metal chassis	8	Test current = 32A, 2min. Voltage drop = 0.256V
PE pin of AC inlet to Metal chassis	10	Test current = 40A, 2min. Voltage drop =0.40V
PE pin of AC inlet to C810 Sec. Pin	5	Test current = 32A, 2min. Voltage drop =0.16V
PE pin of AC inlet to C810 Sec. Pin	24	Test current = 40A, 2min. Voltage drop = 0.096V
Supplementary information:		

2.10.2	Table: working voltage measurement	P

Location	RMS voltage (V)	Peak voltage (V)	Comments
Testing conducted on PSU P/N: LE22BW-D-8			
T801 Pin 1 to Pin 6,7	200	360	
Pin 1 to Pin 8	204	404	
Pin 1 to Pin 9,10	202	340	
Pin 3 to Pin 6,7	235	468	
Pin 3 to Pin 8	228	452	
Pin 3 to Pin 9,10	**240**	**472**	Max. Vrms and Vpeak
Pin 4 to Pin 6,7	220	408	
Pin 4 to Pin 8	219	316	
Pin 4 to Pin 9,10	220	420	
Pin 5 to Pin 6,7	219	372	
Pin 5 to Pin 8	220	380	
Pin 5 to Pin 9,10	219	360	
I802 Pin 3 to Pin 1	222	368	
Pin 3 to Pin 2	222	368	
Pin 4 to Pin 1	222	368	
Pin 4 to Pin 2	222	368	
C810 Pin1 to Pin 2	218	360	
supplementary information:			

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements	P

Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Testing conducted on PSU P/N: LE22BW-D-8						
Functional: Live – Neutral before fuse ***a)***	339	240	2.3 ***1)***	4.9	2.5	4.9
Functional: F801, pad-1 – F801, pad 2 ***a)***	339	240	2.3 ***1)***	2.5	2.5	2.5
Basic: Line – PE ***a)***	339	240	3.0 ***1)***	4.6	3.0 ***2)***	4.6
Basic: Neutral – PE ***a)***	339	240	3.0 ***1)***	5.3	3.0 ***2)***	5.3
Basic: C816 (prim.) – metal chassis (PE) ***b)***	339	240	3.0 ***1)***	10.0	3.0 ***2)***	10.0
Basic: C801 (prim.) – PE ***a)***	339	240	3.0 ***1)***	4.5	3.0 ***2)***	4.5
Basic: C802 (prim.) – PE ***a)***	339	240	3.0 ***1)***	4.5	3.0 ***2)***	4.5
Basic: C810 (prim.) – PE ***a)***	376	222	3.0 ***1)***	7.0	3.0 ***2)***	7.0
Basic: trace of C810 (prim.) – trace of C810 (sec.)	376	222	3.0 ***1)***	7.0	3.0 ***2)***	7.0
Reinforced: trace of T801 pin 5 (prim.) – trace of D803 (sec.) ***a)***	472	240	6.3 ***1)***	11.0	6.3 ***2)***	11.0
Reinforced: trace of I802 (prim.) – trace of I802 (sec.)	368	222	6.0 ***1)***	7.0	6.0 ***2)***	7.0
Reinforced: trace of C803 (prim.) – trace of C924 (sec.)	472	240	6.3 ***1)***	7.7	6.3 ***2)***	7.7
Reinforced: trace of R802 (prim.) – trace of C924 (sec.)	472	240	6.3 ***1)***	7.7	6.3 ***2)***	7.7
Supplementary information:						
- Following components are fixed by glue: C816 with PCB; C819 with PCB. ***1)*** This equipment is intended to be operated under altitude up to 5,000m, so the clearance is multiplied by the altitude correction factor (1.48, linear interpolation used), specified in table A.2 of IEC 60664-1, 1992+A1: 2000. ***2)*** The minimum creepage distance is less than the minimum clearance, that value of minimum clearance applied as the minimum creepage distance. ***a)*** Measured at solder side of PCB. ***b)*** Measured at component side of PCB.						

2.10.5	TABLE: Distance through insulation measurements	P

Distance through insulation (DTI) at/of:	U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Insulation tape in transformer (T801) Reinforced- 3 layers (2 layers tested). Basic: 1 layer.	472	240	3000V ac 1740V ac	2 layers --	3 layers 1 layer
Supplementary information:					

4.5	TABLE: Thermal requirements				P
	Supply voltage (V):	90V/60H ***1)***	90V/60H ***2)***	264V/60Hz ***1)***	—
Maximum measured temperature T of part/at:		T (°C)			Allowed T_{max} (°C)
Testing conducted on PSU P/N: LE22BW-D-8					
AC Inlet near line (PSU)		48.1	47.2	47.1	70
Switch body (PSU)		50.9	48.4	48.4	85
C802 body (PSU)		54.3	54.8	52.7	85
C803 body (PSU)		59.5	53.3	53.0	100
PWB near R801 (PSU)		74.3	71.8	57.9	105
L801 coil (PSU)		77.6	71.5	58.0	120
C816 body (PSU)		65.4	61.6	59.0	105
PCB near D801 (PSU)		71.3	62.0	60.4	105
PCB near Q801 (PSU)		69.2	62.4	66.1	105
T801 coil (PSU)		74.4	76.1	75.5	110
C810 body (PSU)		59.4	62.8	59.5	85
I802 body (PSU)		66.5	61.5	66.9	100
PCB near main board IC		64.3	70.1	64.7	105
Plastic enclosure inside near T801		42.9	45.4	43.4	--
Plastic enclosure outside near T801		41.5	43.3	41.6	95
Ambient		40.0	40.0	40.0	--
Supplementary information:					
Having a specified maximum ambient temperature of 40°C. Tmax. Limits include less 10°C for thermocouple measurement method. The maximum temperatures are calculated according to cl. 1.4.12. If no limit is stated, temperature is for reference only.					

4.7	**TABLE: Resistance to fire**				**P**
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence
Enclosure	Interchangeable	Interchangeable	0.6 mm	Metal	--
Supplementary information:					

5.1	TABLE: touch current measurement	P

Measured between:	Measured (mA)	Limit (mA)	Comments/conditions
Testing conducted on PSU P/N: LE22BW-D-8			
Line to plastic enclosure with metal foil	0.01	0.25	Fuse in
Neutral to plastic enclosure with metal foil	0.01	0.25	Fuse in
Line to metal chassis	0.62	3.5	Fuse in
Neutral to metal chassis	0.62	3.5	Fuse in
supplementary information:			
- All Y-caps rated max. according to List of critical components.			

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests	P

Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Primary to Secondary	DC	4242	No
Primary to PE	DC	2396	No
Primary to Plastic enclosure	DC	4242	No
T801 Primary to Secondary	AC	3000	No
T801 Secondary to Core	AC	3000	No
Supplementary information:			
All source of optocoupler, transformer (see table 1.5.1) were performed the test.			

5.3	TABLE: Fault condition tests		P
	Ambient temperature (°C) .....:	25°C if not state.	—
	Power source for EUT: Manufacturer, model/type, output rating .....:		—

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Testing conducted on PSU board P/N: LE22BW-D-8 with main board B						
Ventilation openings	Blocked	240	1.5 hours	F801	0.20	Unit operated normally. CT: T801 = 63.3°C, I802 = 54.7°C, ambient=27.9°C, NCD, NB, NH.
D801 (~ to +)	s-c	240	< 1sec	F801	***1)***	Fuse opened, CD: D801, NB, NH.
C816	s-c	240	< 1sec	F801	***1)***	Fuse opened, no hazards.
R831	s-c	240	< 1sec	F801	***1)***	Fuse opened, CD: D801, Q801, NB, NH.
Q801, (G - S)	s-c	240	10 mins	F801	0.01	Unit shut down, NCD, NB, NH.
Q801, (D - G)	s-c	240	< 1sec	F801	***1)***	Fuse opened, CD: Q801, I801, NB, NH.
Q801, (D - S)	s-c	240	< 1sec	F801	***1)***	Fuse opened, CD: Q801, NB, NH.
I801, (1 - 5)	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
I801, (2 - 5)	s-c	240	10 mins	F801	***1)***	Fuse opened, CD: Q801, NB, NH.
I802, (1 - 2)	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
I802, (3 - 4)	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
I802, (1)	o-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.

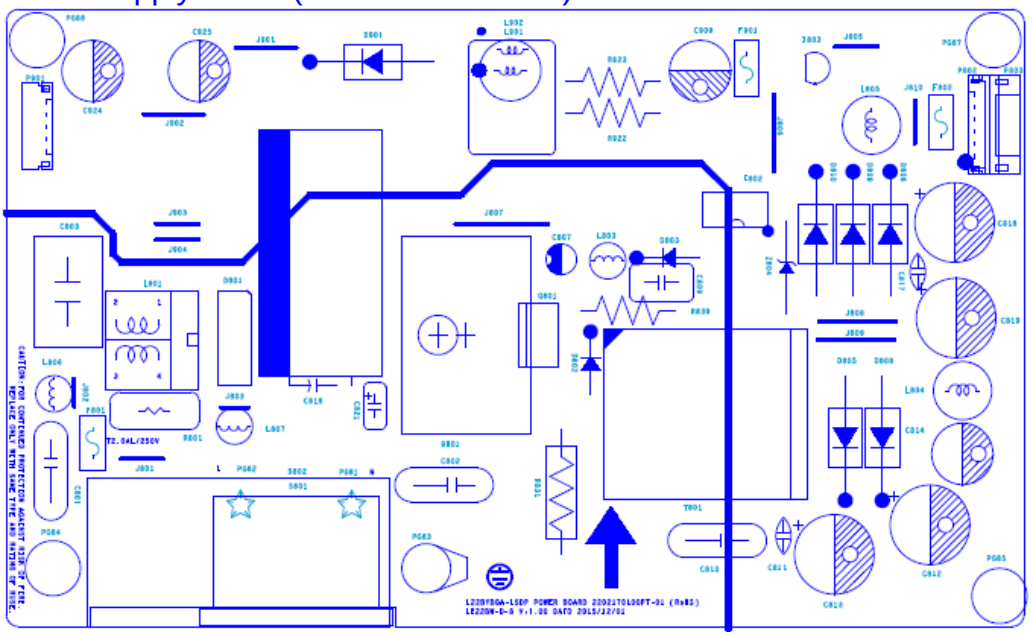
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
I802, (3)	o-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
+5V - GND	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
+14V - GND	s-c	240	10 mins	F801	0.03	Unit shut down, NCD, NB, NH.
+14V - + 5V	s-c	240	10 mins	F801	0.03	Unit shut down, NCD, NB, NH.
T801, (1 - 3)	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
T801, (4 - 5)	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
T801, (8 - 6, 7)	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
T801, (8 – 9, 10)	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
+5V to GND	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
+14V to GND	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
+14V to +5V	s-c	240	10 mins	F801	0.02	Unit shut down, NCD, NB, NH.
T801 after D808 (+5V)	o-l	240	2.5 hours	F801	0.20 - 0.02	Unit shut down when increase to 5.5A, temperature was stable at 5.3A. CT: T801 coil= 78.0°C, I802=75.1°C, ambient=28.8°C, NB, NH.
T801 after D809, D810 (+14V)	o-l	240	3.0 hours	F801	0.20- 0.02	Unit shut down when increase to 2.7A, temperature was stable at 2.5A. CT: T801 coil= 103.1°C, I802=72.2°C, ambient=29.4°C, NB, NH.
Supplementary information: s-c=Short circuit, o-c=Open circuit, o-l=Over load. CT= Constant temperature were obtained, CD=Components damaged, NB= No electric strength breakdown, NCD= No component damaged, NH=No hazard.						
1) Fuse current is more than fuse rating times 2.1, for fuse open conditions, same result came out for each source of fuse.						

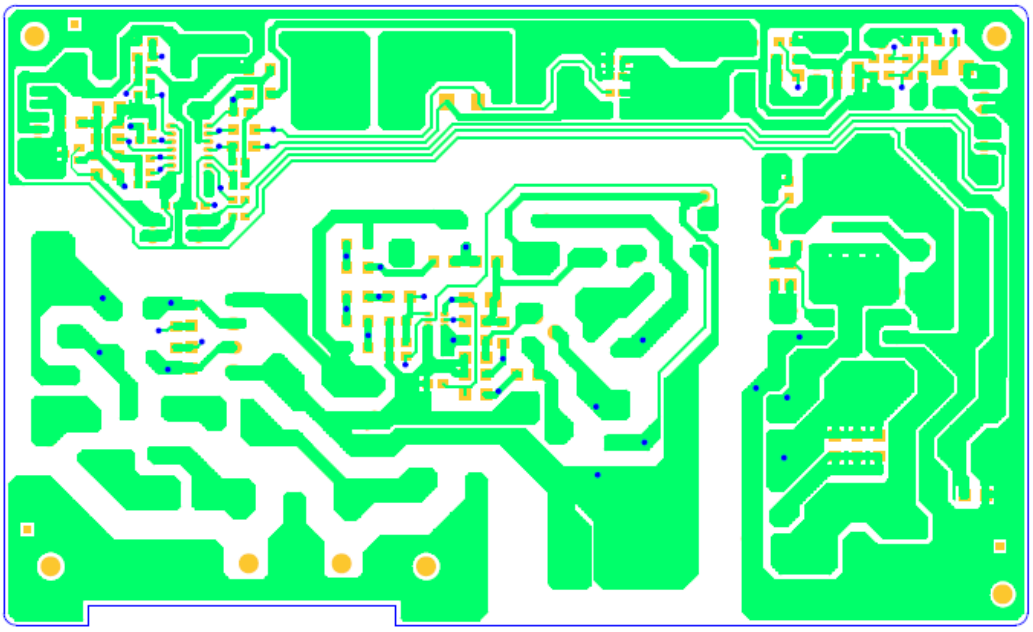
C.2	TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
T801	Primary windings / core – Secondary windings	472	242	3000Vac	6.3 ***1)***	6.3 ***2)***	2 layers min. or 0.4 mm
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
T801	Primary windings / core – Secondary windings			3000Vac	15.4	15.4	***3)***
supplementary information:							
1) This equipment is intended to be operated under altitude up to 5,000m, so the clearance is multiplied by the altitude correction factor (1.48, linear interpolation used), specified in table A.2 of IEC 60664-1, 1992+A1: 2000 ***2)*** Min. creepage distance is less than the applicable min. clearance, that value of min. clearance is applied as min. creepage distance. ***3)*** Secondary winding is triple insulated. Transformer core regarded as a primary part. Primary winding to core distance is 0mm.							

PCB layout

Report No. 299932

Power supply board (P/N: LE22BW-D-8)

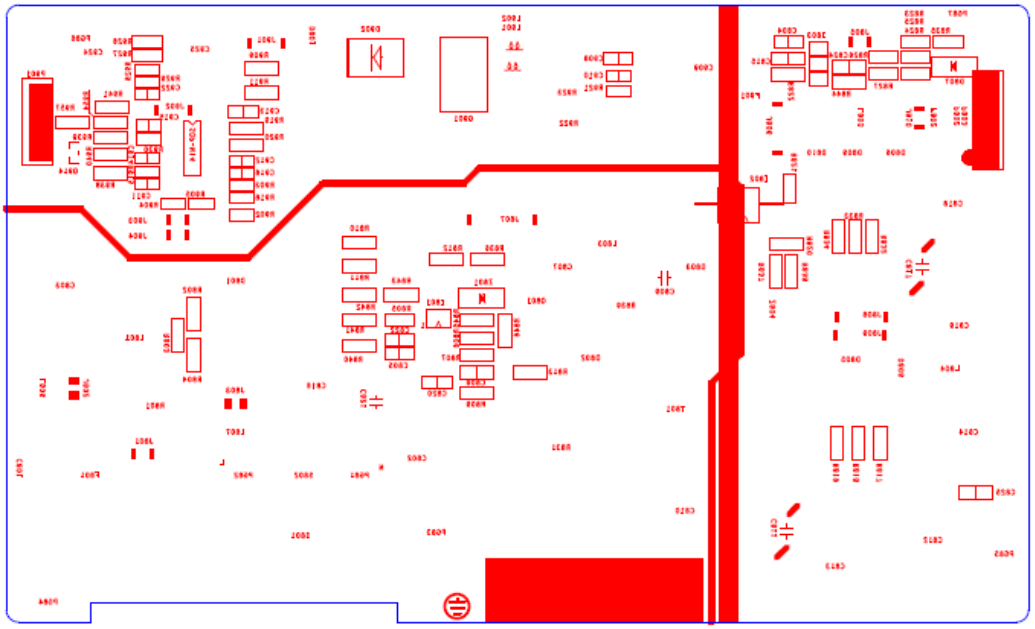




PCB layout

Report No. 299932

Power supply board (P/N: LE22BW-D-8)



Photos

Report No. 299932

With alternative swivel base

Photos

Report No. 299932

With alternative swivel base

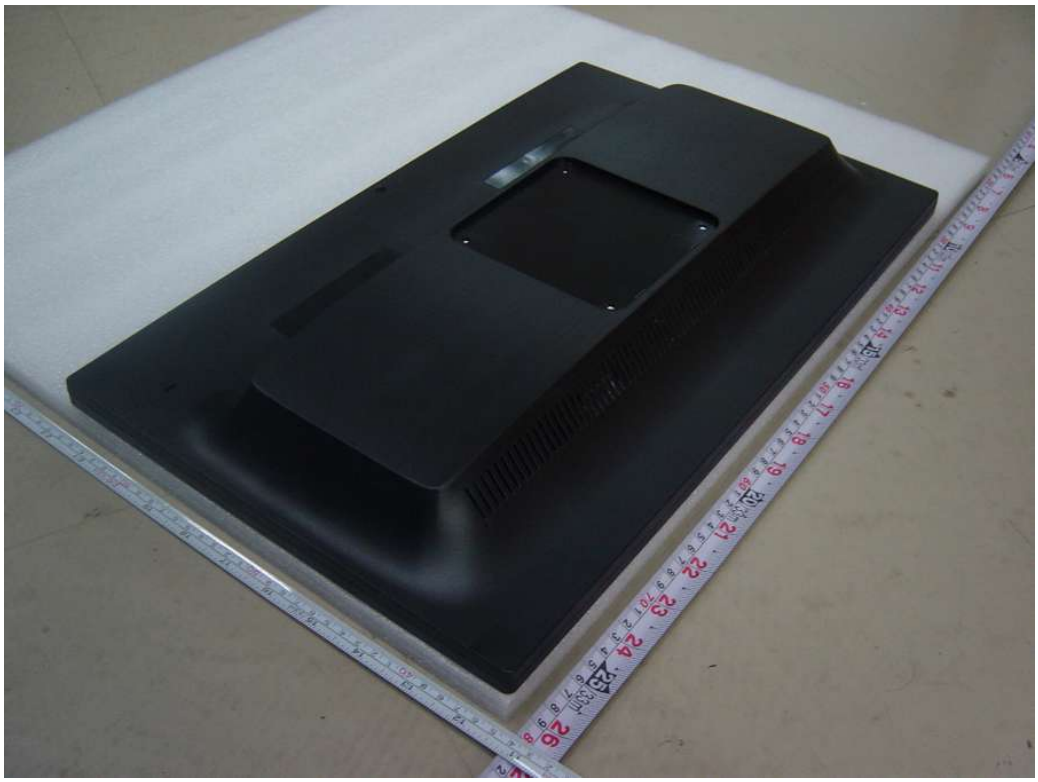
Photos

Report No. 299932

With alternative swivel base

Photos

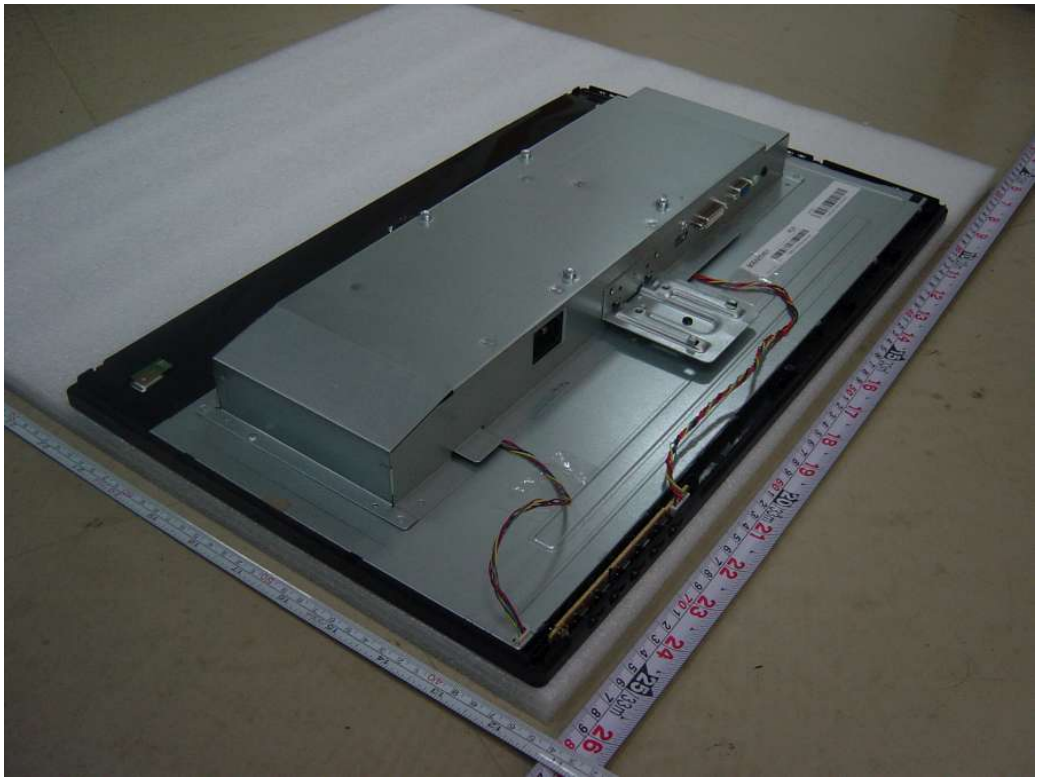
Report No. 299932



Photos

Report No. 299932

Metal enclosure B

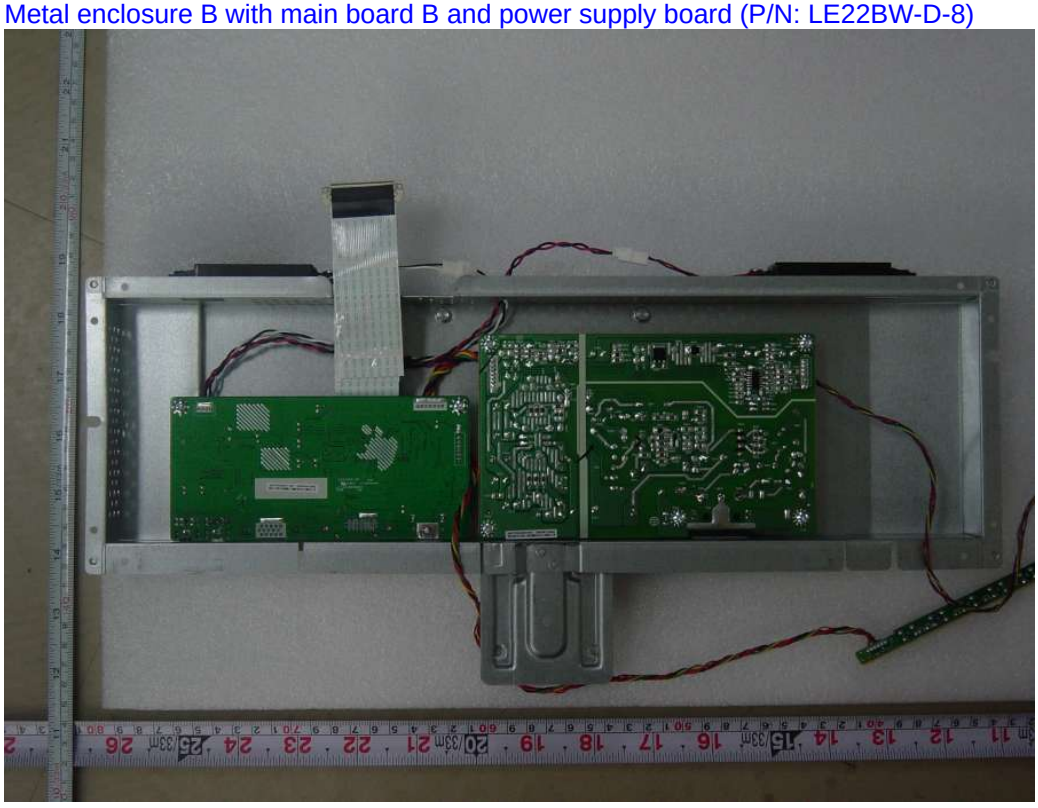


Photos

Report No. 299932

Metal enclosure B

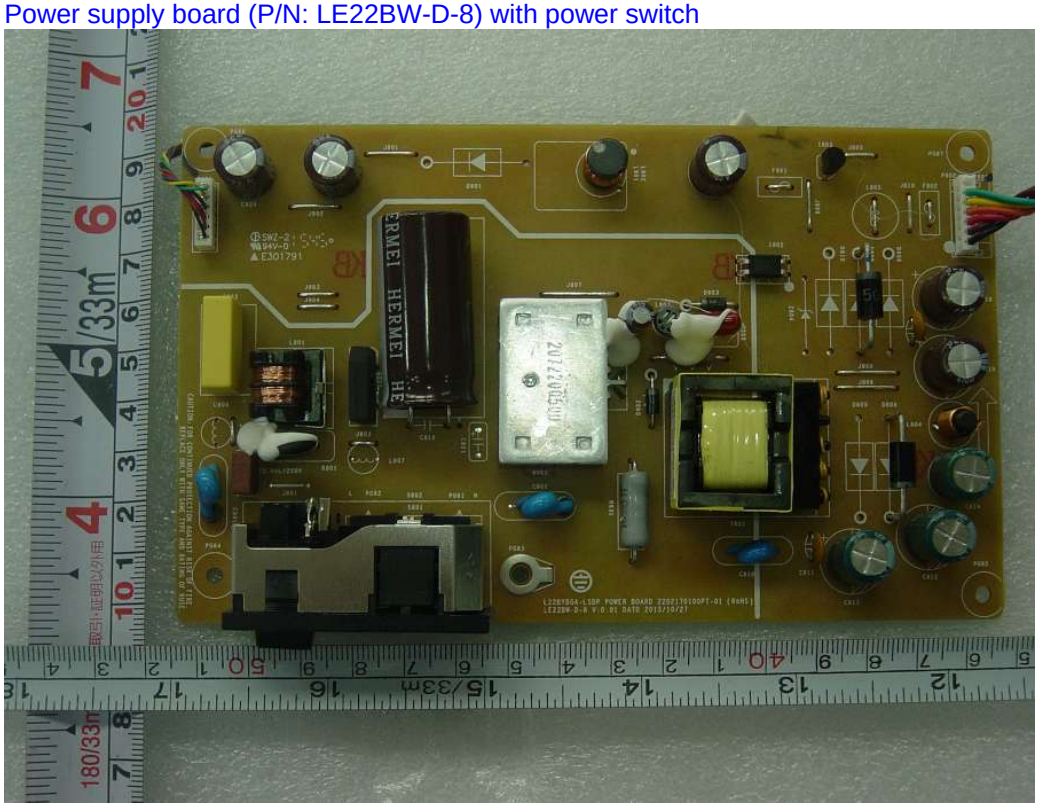
Metal enclosure B with main board B and power supply board (P/N: LE22BW-D-8)



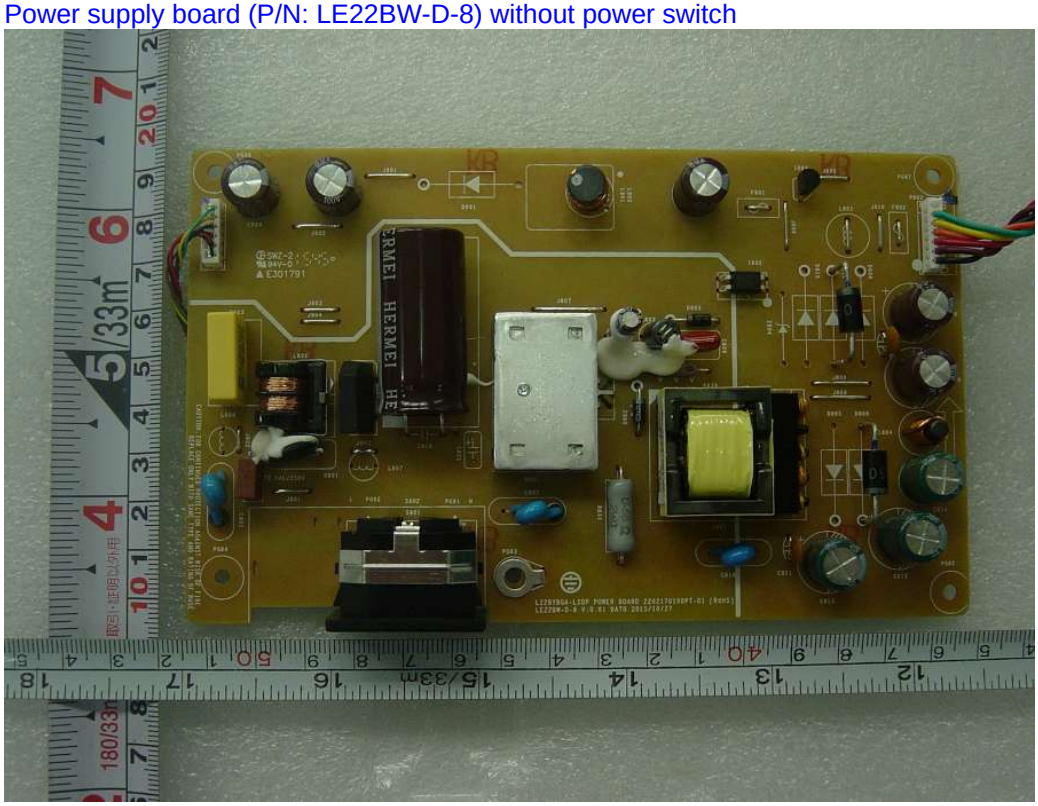
Photos

Report No. 299932

Power supply board (P/N: LE22BW-D-8) with power switch

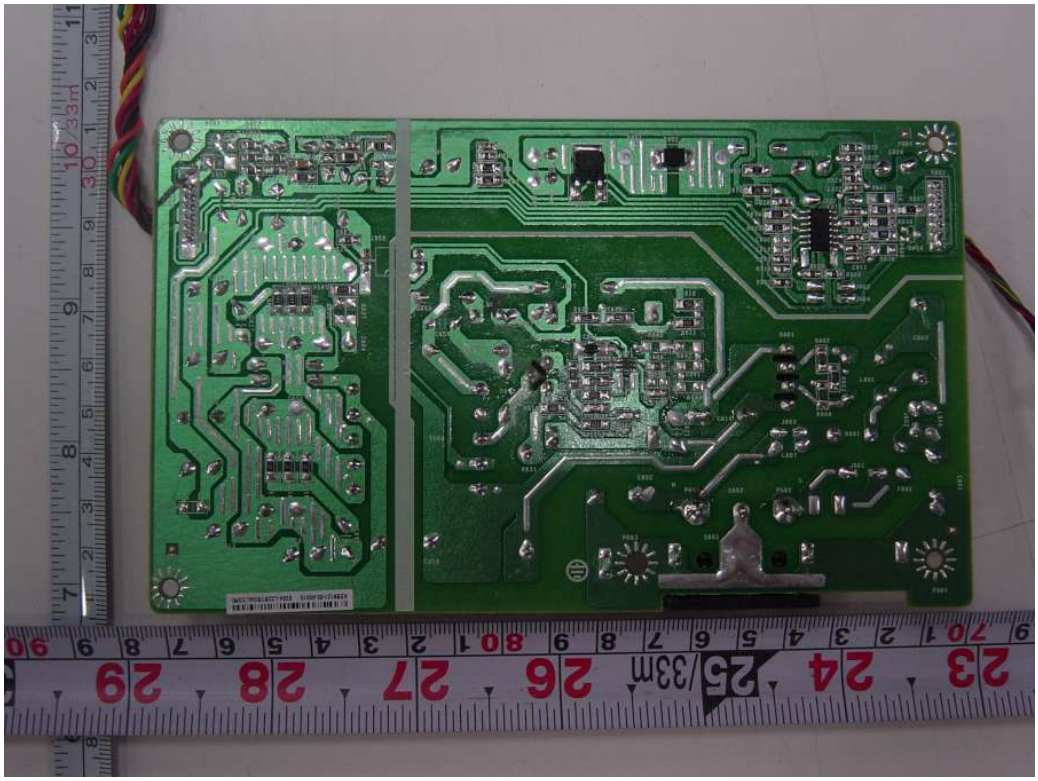


Power supply board (P/N: LE22BW-D-8) without power switch

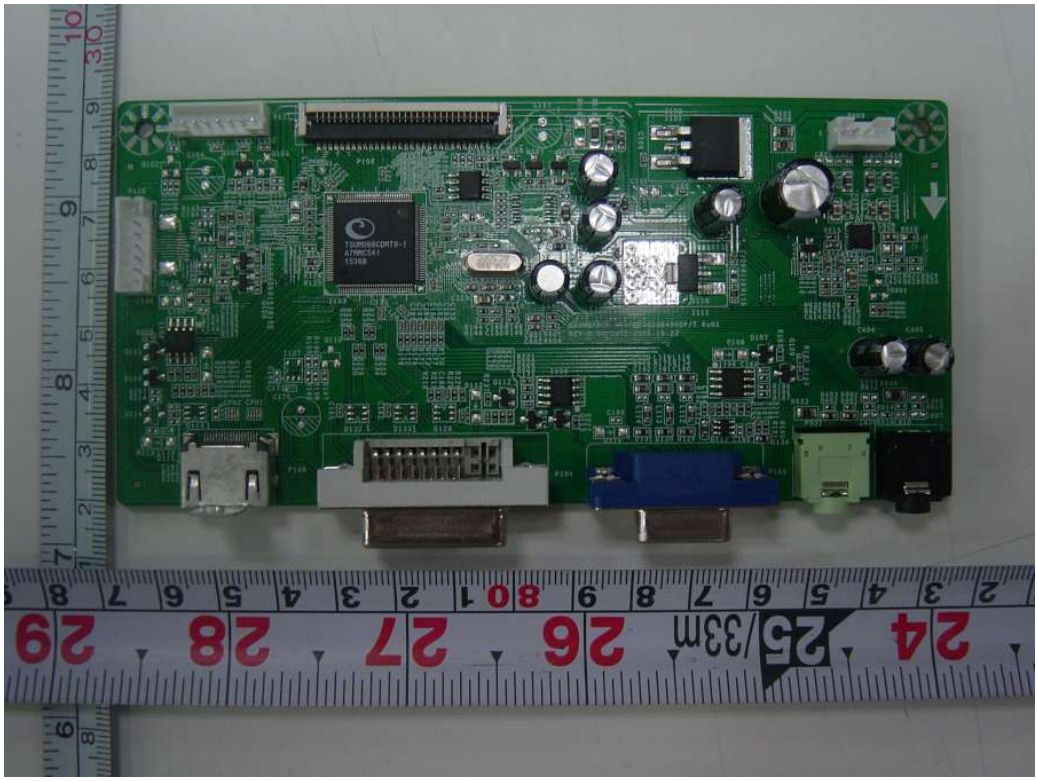


Photos

Report No. 299932



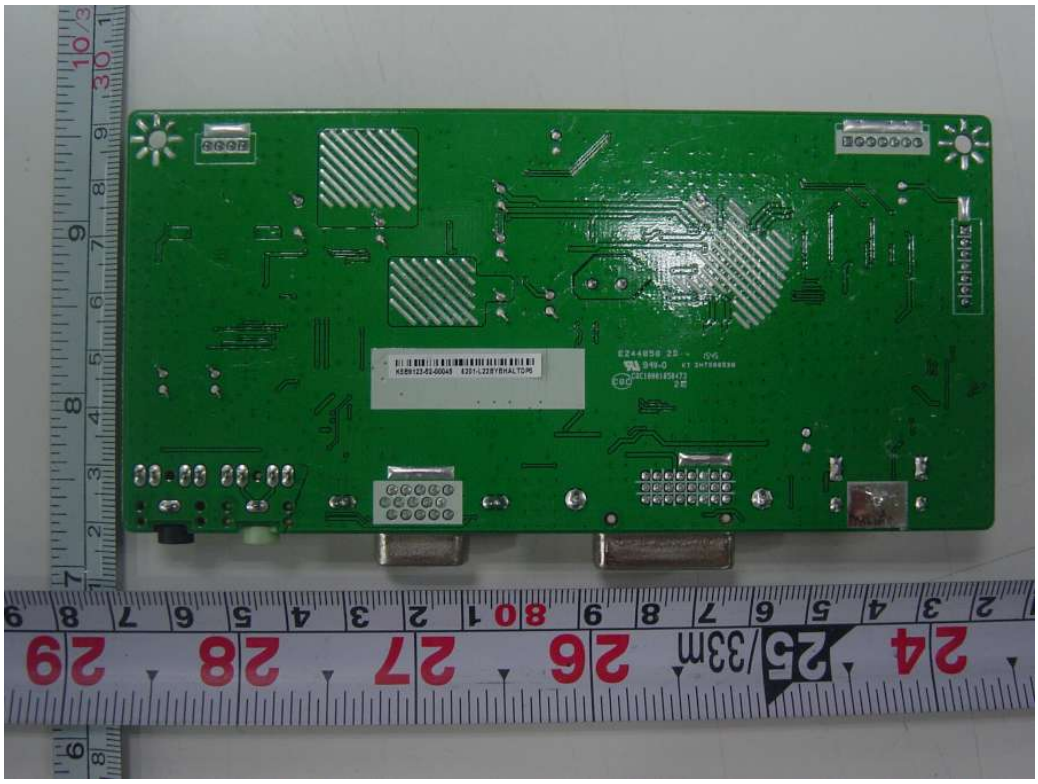
Main board B



Photos

Report No. 299932

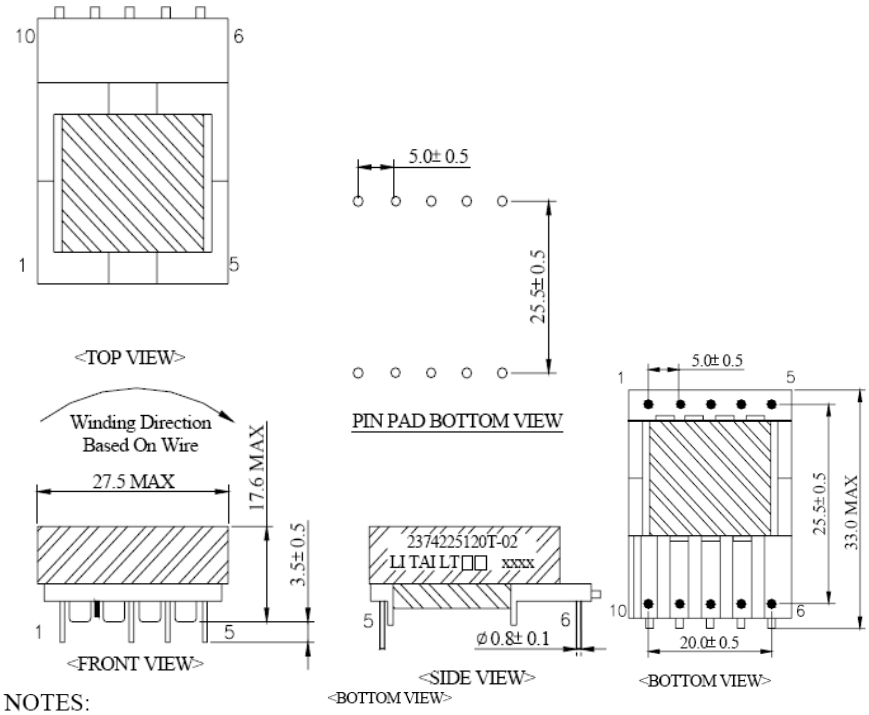
Main Board B



Transformer specification

Report No. 299932

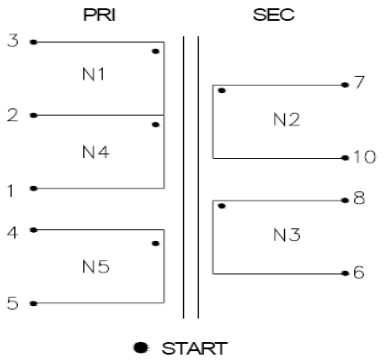
Construction / Winding diagram / Component part no: T801, LI TAI type 2374225120X-02



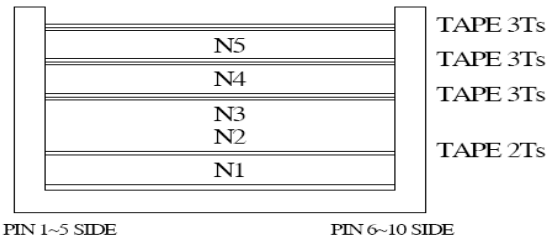
NOTES:

1. MANUFACTURING SITE:(□□□□)
   LI TAI LTFC:Fujian,China
   LI TAI LTSZ:Shenzhen,Guangdong,China
   LI TAI LTSJ:Suzhou,Jiangsu,China
   LOT NO.(XX XX)
   YEAR WEEK
2. PIN 2 CUT OFF 1/2.
3. GAP CORE TO PIN1-5 SIDE
4. MARKING 貼於 PIN5-6 側
5. PIN1-5 朝機台內繞綫

2-1 Schematic :



2-2 Winding Order :



NO.	Winding	Terminal	Wire	Turns	Remark
1	N1	3---2	2 UEW φ0.3×1	29	CLOSED
2	N2	7---10	TIW-M φ0.5×2	4	同層並繞
3	N3	8---6	TIW-M φ0.45×1	7	
4	N4	2---1	2 UEW φ0.3×1	29	CLOSED
5	N5	4---5	2 UEW φ0.23×2	11	中間密繞

Transformer specification

Report No. 299932

Construction / Winding diagram / Component part no: T801, LI TAI type 2374225120X-02

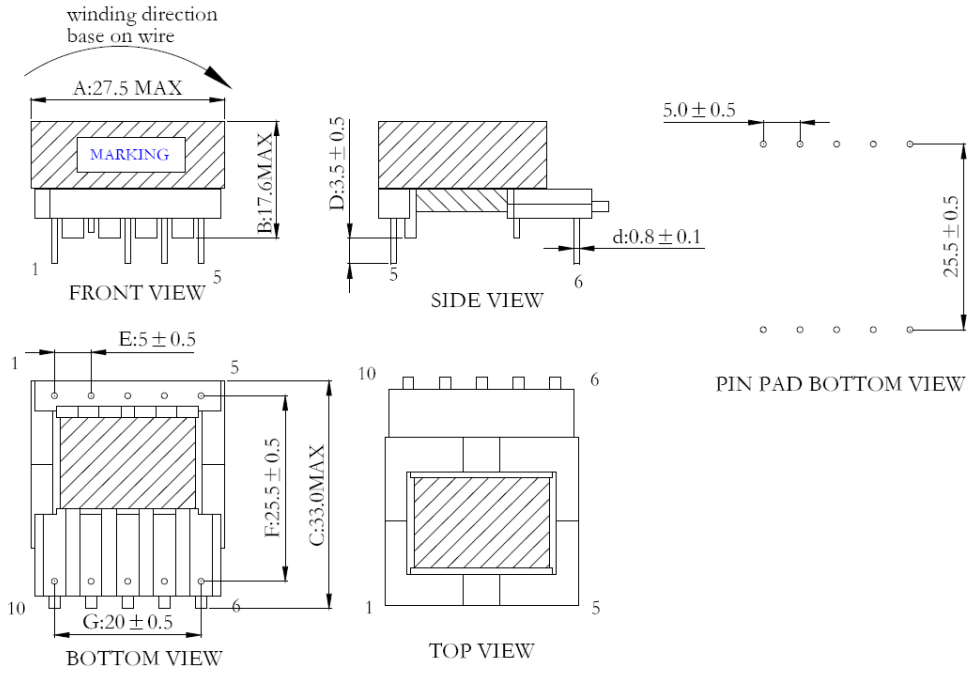
NO	SUB PART	RAW MATERIAL				
		MANUFACTURER	DESCRIPTION	TYPE	FLAME/ TEMP	UL NO.
1	CORE	A-CORE	FERRITE CORE EFD-25	JPP4	N/A	N/A
		TONG DA		TD4		
		TDG OR EQU		TP-4		
2	BOBBIN	CHANG CHUN PLASTICS CO.,LTD	PHENOLIC	T375J	94V-0 /150℃	E59481
3	WIRE	PACIFIC ELECTRIC WIRE & CABLE CO.,LTD	BC-POLYURETHANE OVERCOAT-POLYAMIDE	UEWN/U (ANSI MW-28)	130℃	E201757
4	TRIPLE WIRE	COSMOLINK CO.,LTD	TRIPLE INSULATED	TIW-M	130℃	E213764
5	TAPE	3M COMPANY. (CTI GPOUP II) Dielectric breakdown 5kv THICKNESS 0.063mm	POLYESTER THICKNESS	NO. 1350F-1(b)	130℃	E17385
		SYMBIO INC (CTI GPOUP II) Dielectric breakdown 5.5kv THICKNESS 0.055mm	POLYETHYLENE	NO.35660Y(e)	130℃	E50292
6	VARNISH	HITACHI CHEMICAL CO.,LTD	POLYESTER	WP-2952F-2G(Y)	130℃	E72979

Transformer specification

Report No. 299932

Construction / Winding diagram / Component part no: T801, ASET type 2374225120X-08

1.1 Dimensions



NOTES:

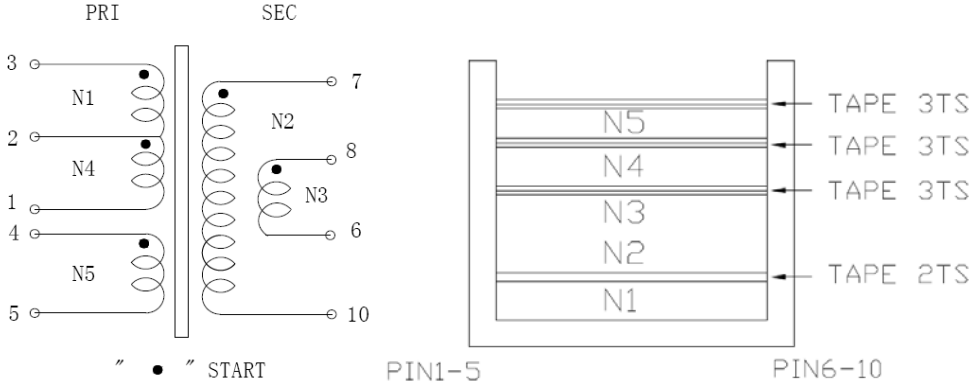
1. PIN 2 CUT OFF 1/2 AFTER SOLIDER.
2. PIN1-5 SIDE 順時針繞線
3. GAP CORE TO PIN1-5 SIDE

1.2 Marking contents :

1.4.1 CUST P/N : 2374225120T-08
1.4.2 ASET P/N：**3TREFD25-701K-4**
1.4.3 VENDOR NAME OR TRADE MARK :ASET
1.4.4 DATE CODE: YEAR & WEEK（XXXX）
1.4.5 ELECTRICAL INSULATION SYSTEMS, DESIGNTION ASET 01,E354764(COPY CIS.04 TABLE III)
1.4.5 MARKING STANDARDS:

2374225120T-08
ASET 01
ASET XXXX

MANUFACTURING SITE:(□□□□)
ASET :SUZHOU.WUJIANG,China



Transformer specification

Report No. 299932

Construction / Winding diagram / Component part no: T801, ASET type 2374225120X-08

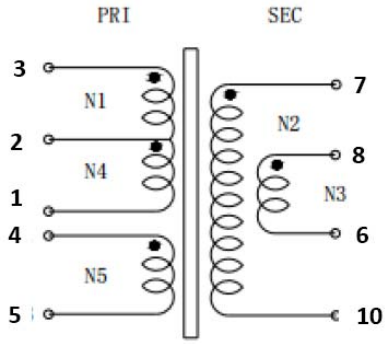
Winding	Terminal	Wire	Turrns	Tape	Margin tape		Remark
					Pin1-5	Pin6-10	
N1	3--2	2 UEW φ0.3×1	29	2TS	-	-	密绕
N2	7--10	TIW-M φ0. 5×2	4	3TS	-	-	同層并绕
N3	8--6	TIW-M φ0.45×1	7		-	-	
N4	2--1	2 UEW φ0.3×1	29	3TS	-	-	密绕
N5	4--5	2 UEW φ0.23×2	11	3TS	-	-	散绕

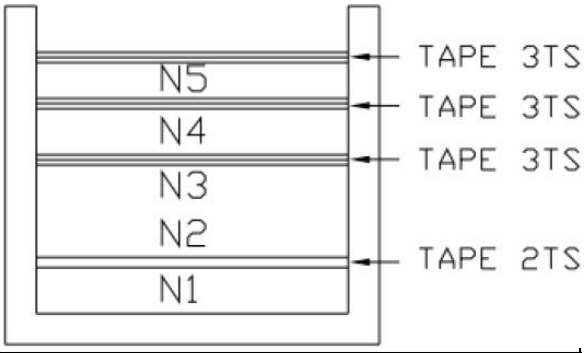
NO	SUB PART	TYPE	UL FILE NO.	TMP	MANUFACTURER
1	CORE	EFD-25 DRM40	N/A	N/A	HENGDIAN GROUP DMEGC MAGNETICS CO.,LTD.
		EFD-25 PF-2	N/A	N/A	WORLD BEST MAGWAY MAG NETIC COMPONENTS CO.,LTD
2	WIRE	TYPU-130 (UEW/QA-B) φ0.3mm& φ0.23mm	E245514	130℃	HENG YA ELECTRIC KUN SHAN LTD
3	Triple Insulated Wire	TIW-M φ0.45 mm& φ0.5 mm	E213764 VDE 138053 TUV B07025261 7001	130℃	COSMOLINK CO.,LTD
4	BOBBIN	EFD25 T375J 94V-0	E59481	150℃	CHANG CHUN PLASTICS CO LTD
5	TAPE	Cat. No. CT* (c)（g） CTI Group I (Dielectric breakdown ≥5. 0KV) THICKNES:0.06mm	E165111	130℃	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD
6	VARNISH	T-4260(a)	E228349	130℃	SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD
7	SOLDER	SHENGMAO (PF640) SOLDER	NA	NA	SHENGMAO TECHNOLOYG INC.
8	EPOXY	3300A-1/3300B-1	E218090	130℃	DONGGUAN EATTO ELECTRONIC MATERIAL CO LTD
4	BOBBIN	EFD25 PM-9820 94V-0	E41429	150℃	SUMITOMO BAKELITE CO LTD

Transformer specification

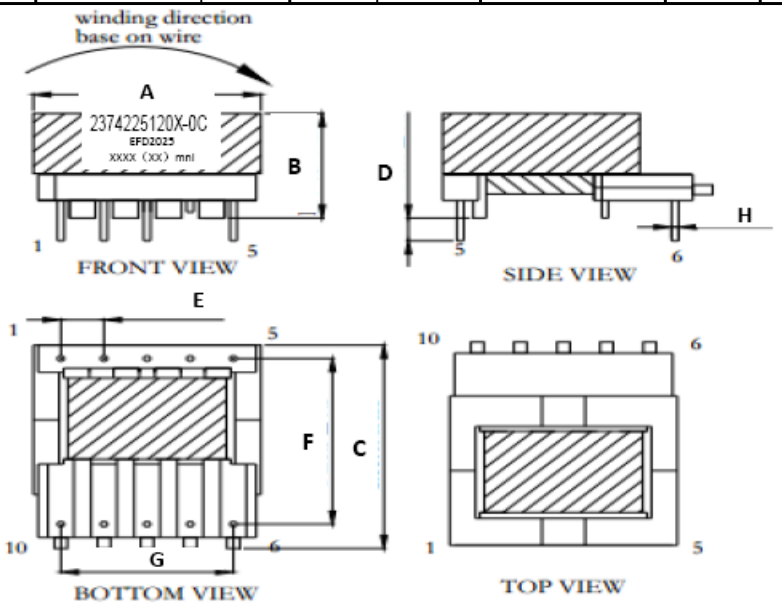
Report No. 299932

Construction / Winding diagram / Component part no: T801, SUZHOU MANNILUN type 2374225120X-0C





NO	WIRE SIZE	START	END	TURNS	INSULATING TAPE	Safety tape		NOTE
						PIN1-5	PIN6-10	
N1	0.3*1 2UEW	3	2	29	2TS	-	-	Closed
N2	0.5*2 TIW-M	7	10	4	3TS	-	-	Bifilar
N3	0.45*1 TIW-M	8	6	7		-	-	
N4	0.3*1 2UEW	2	1	29	3TS	-	-	Closed
N5	0.23*2 2UEW	4	5	11	3TS	-	-	Spread



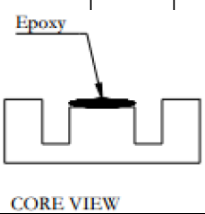
A	27.5 MAX
B	17.6 MAX
C	33.0MAX
D	3.5±0.5
E	5.0±0.5
F	25.5±0.5
G	20.0±0.5
H	0.8±0.1

UNIT:mm

UNIT:mm

备注:

1. PIN7保留。在焊锡后，PIN4剪除1/2。
2. 研磨磁芯中柱加点软胶（E-8757B）。装在PIN1-5边. 如图示：
3. 磁芯包胶布（T9.0mm)3TS。



Transformer specification

Report No. 299932

Construction / Winding diagram / Component part no: T801, SUZHOU MANNILUN type 2374225120X-0C

NO	ITEM	SIZE	MATERIAL	MANUFACTURER	UL FILE NO
1	CORE	EFD-25	PC40	浙江天通磁性材料有限公司	NA
			JF40	无锡斯贝尔磁性材料有限公司	NA
2	WIRE	2UEW	WIRE CU 2UEW MW-28 NAT （130℃）	SHANGHAI ASIA PACIFIC ELECTRIC CO,LTD	E214423
				NINGBO JINTIAN NEW MATERIAL CO,LTD	E227047
3	TRIPLE INSULATED WIRE	φ 0.5&0.45mm	TIW-M （130℃）	COSMOLINK CO LTD	E213764
4	BOBBIN	EFD-25	T375J（150℃）	CHANG CHUN PLASTICS CO,LTD	E59481
5	VARNISH	EPOXY CLEAR	BC-346-A（155℃）	JOHN C DOLPH CO	E317427
6	SOLDER	SOLDER BAR SN99.7/CU0.3	NA	苏州市升贸焊锡制造有限公司	NA
7	TAPE	Cat. No. CT*(c)(g) CTI Group I (Dielectric breakdown ≥5.0KV) THICKNES:0.06mm	CT*(c)(g)（130℃）	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	E165111